

**National Load Despatch Centre  
Total Transfer Capability for October 2014**

Issue Date: 30/09/2014

Issue Time: 1500 hrs

Revision No. 3

Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA) #	Margin Available for Short Term Open Access (STOA)	Changes in TTC w.r.t. Last Revision	Comments
NR-WR *	1st October 2014 to 31st October 2014	00-24	2500	500	2000	651	1349		
WR-NR	1st October 2014 to 31st October 2014	00-17 23-24	4900	500	4400	4380	20		
		17-23	4900		4400		20		
NR-ER*	1st October 2014 to 31st October 2014	00-06	1800	200	1600	293	1307		
		06-17'			800	358	442		
		17-18'	1800		1600	358	1242		
		18-23			900	293	607		
		23-24	1800		1600	293	1307		
ER-NR	1st October 2014 to 31st October 2014	00-17 23-24	2800	300	2500	2431	69	-1200	Revised considering the present inter-regional flow pattern and transit flows from ER to NR via WR
		17-23					69		
W3-ER <sup>s</sup>	1st October 2014 to 31st October 2014	00-24	1600	300	1300	697	603		
ER-W3	1st October 2014 to 31st October 2014	00-24	1000	300	700	874	0		
WR-SR	1st October 2014 to 31st October 2014	00-24	2100	750	1350	1350	0		
SR-WR *	1st October 2014 to 31st October 2014	00-24	No limit is being specified						
ER-SR	1st October 2014	00-06 18-24	2650	0	2650	2585	65		Revised due to shutdown of 220kV Jeypore-Jayanagar ckt 1 and ckt 2 one at a time
		06-08'			2650	2650	0		
		08-18'	2450		2450	0	-200		
	2nd October 2014 to 31st October 2014	00-06 18-24	2650	0	2650	2585	65		
		06-18'				2650	0		
SR-ER *	1st October 2014 to 31st October 2014	00-24	No limit is being specified						
ER-NER	1st October 2014 to 31st October 2014	00-06 23-24	700	40	660	210	450	160	Revised after the reassessment of TTC due to the commissioning of the new elements in NER.
		06-17'			700	660	210	450	
		17-18	600		560	210	350	90	
		18-23	600		560	210	350	90	
NER-ER	1st October 2014 to 31st October 2014	00-17 23-24	690	100	590	0	590		
		17-23			530		430		
		19th October 2014	2750		300	2450	2651		
S1-S2	1st October 2014	00-24	3785	300	3485	2946	539	735	Due to the outage of Vallur Unit-2 and NCTPS St-2 Unit-1
	2nd October 2014 to 5th October 2014	00-24	3050	300	2750	2837	0		
	6th October 2014 to 14th October 2014	00-24	2750	300	2450	2764	0		
	15th October 2014 to 18th October 2014	00-24	2750	300	2450	2728	0		
	20th October 2014 to 28th October 2014	00-24	2750	300	2450	2651	0		
	29th October 2014 to 30th October 2014	00-24	2750	300	2450	2651	0		
	31st October 2014	00-24	2750	300	2450	2687	0		

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Import of Punjab	1st October 2014 to 31st October 2014	00-24	5700	300	5400	3790	1610		
Import TTC for DD & DNH	1st October 2014 to 31st October 2014	00-24	1200	0	1200	LTA and MTOA as per ex-pp schedule			
W3 zone Injection	1st October 2014 to 31st October 2014	00-17	9400	200	9200	6843	2357		
		23-24			9700		2857		
		17-23	9900						

\* Fifty Percent (50 %) Counter flow benefit on account of LTA/MTOA transactions in the reverse direction would be considered for advanced transactions (Bilateral & First Come First Serve).

\$ As per Simulations, predominant direction of flow is on West to North Corridor. Hence, in case injection point is in Western Region (W1,W2,W3), STOA/PX transactions from West to North on West-East-North corridor shall not be allowed as such transaction increases congestion in the West to North Corridor.

- 1) ER-SR TTC declared at Talcher Interconnector and Gazuwaka HVDC B/B seam
- 2) S1 comprises of AP and Karnataka; S2 comprises of Tamil Nadu, Kerala and Pondicherry
- 3) W3 comprises of the following regional entities :
  - a) Chattisgarh, b) Jindal Power Limited (JPL) , c) Jindal Steel and Power Limited (JSPL), d) ACBL, e) LANCO Amarkantak
  - f) BALCO, g) Sterlite (#1,3,4), h) NSPCL, i) Korba, j) Sipat, k) KSK Mahanadi, L)DB Power, m) KWPCCL n) Vandana Vidyut

# The figure is based on LTA/MTOA approved by CTU. In actual Operation, due to Units being on Maintenance/ Fuel shortage the LTA/MTOA utilized would vary. RLDC/NLDC would factor this situation on day ahead basis. In the eventuality that net schedules exceed ATC, real time curtailments might be effected by RLDCs/NLDC.

In case of TTC Revision due to any shutdown :

- 1) The TTC value will be revised to normal values after restoration of shutdown.
- 2) The TTC value will be revised to normal values if the shutdown is not being availed in real time.

**Limiting Constraints**

Corridor	Constraint
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak
WR-NR	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and Loop flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda (power flowing from WR to NR on 765kV Gwalior-Agra D/C and from NR to WR on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda).
NR-ER	(n-1) contingency of 400 kV Sarnath-Pusauli
ER-NR	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) due to transit flows on ER-WR-NR corridor.
W3-ER	(n-1) contingency of one circuit of 400kV MPL-Maithon D/C
ER-W3	(n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela
WR-SR & ER-SR	1. (n-1) contingency of 400kV Parli(PG)-Sholapur(PG) D/C
	2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within ER would emerge.
SR-WR	Bhadrawati HVDC B/B link capacity
SR-ER	(n-1) contingency of one circuit of 400kV Talcher-Rourkela D/C
ER-NER	Palatana unit tripping leading to the thermal overloading of 220 kV BTPS - Salakati D/C
NER-ER	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa and High loading of 220kV Misa-Samaguri D/C
S1-S2	(n-1) contingency of one circuit of 400 kV Kolar-Hosur D/C line
Import of Punjab	(n-1) contingency of ICT at Patiala/Moga
W3 zone Injection	(n-1-1) contingency of one circuit of 400 kV Raipur-Bhadrawati D/C section

\*Primary constraints

### Simultaneous Import Capability

Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA)	Margin Available for Short Term Open Access (STOA)	Changes in TTC w.r.t. Last Revision	Comments
ER									
NR	1st October 2014 to 31st October 2014	00-17 23-24	7700	800	6900	6811	89	-1200	Revised considering the present inter-regional flow pattern and transit flows from ER to NR via WR
		17-23	7700		6900		89		
NER	1st October 2014 to 31st October 2014	00-06 23-24	700	40	660	210	450	160	Revised after the reassessment of TTC due to the commissioning of the new elements in NER.
		06-17'	700		660	210	450	160	
		17-18	600		560	210	350	90	
		18-23	600		560	210	350	90	
WR									
SR	1st October 2014	00-06 18-24	4750	750	4000	3935	65	-200	Revised due to shutdown of 220kV Jeypore-Jayanagar ckt 1 and ckt 2 one at a time
		06-08'	4750		4000	4000	0		
		08-18'	4550		3800	4000	0		
	1st October 2014 to 31st October 2014	00-06 18-24	4750	750	4000	3935	65	0	
		06-18'	4750		4000	4000	0		

### Simultaneous Export Capability

Corridor	Date	Time	Total	Reliability	Available	Long Term	Margin	Changes	Comments
NR*	1st October 2014 to 31st October 2014	00-06	3500	700	2800	944	1856		
		06-17'			2800	1009	1791		
		17-18'	3600		2900	1009	1891		
		18-23			2900	944	1956		
		23-24	3500		2800	944	1856		
NER	1st October 2014 to 31st October 2014	00-17 23-24	690	100	590	0	590		
		17-23	530		430		430		
WR									
SR *	1st October 2014 to 31st October 2014	00-24	No limit is being specified						

\* Fifty Percent (50 %) Counter flow benefit on account of LTA/MTOA transactions in the reverse direction would be considered for advanced transactions (Bilateral & First Come First Serve).

### Limiting Constraints

NR	Import	(n-1) contingencies of one circuit of 400KV Farakka-Malda D/C & (n-1) contingency of one circuit of 400KV High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and Loop
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.
NER	Import	(n-1) contingency of 400 kV Samath-Pusauli
	Export	Palatana unit tripping leading to the thermal overloading of 220 kV BTPS - Salakati D/C
SR	Import	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa and High loading of 220kV Misa-Samaguri D/C
	Export	1. (n-1) contingency of 400kV Parli(PG)-Sholapur(PG) D/C 2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within ER would emerge.

**National Load Despatch Centre  
Total Transfer Capability for October 2014**

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	08-08-2014	Whole Month	STOA Margin revised due correction in LTA/ MTOA/ Allocation.	NR-WR/ NR-ER/ W3-ER
			Revised due to commissioning of contingency arrangement of one 500 MW Vindhyachal (Unit-12) with 400kV Vindhyachal-Rihand line.	WR-NR
			Revised due to commissioning of 765kV Sholapur-Raichur Circuit-2 and 765kV Wardha-Aurangabad D/C. The LTA/MTOA figures are based on allocations and the meetings on TTC/ATC taken by CTU on 24th and 30th Jul 2014. Any margins on account of less LTA/MTOA would be offered on day ahead basis.	WR-SR/ ER-SR
			Revised due to commissioning of 400/220KV 2X315MVA ICT at Kala S/S along with 220kV Kala-Sayali and 220KV Kala-Khadoli lines	Import TTC for DD & DNH
2	26-09-2014	Whole month	LTA/MTOA revised by CTU. MTOA from MP to Bescom (KPTCL) = 111 MW, MTOA from KSEB to Chattishgarh = 100 MW. TNEB got 365 MW LTA from WR (Jindal-150MW(earlier), KSK Mahanadi =179 MW, BALCO = 36 MW)	ER-SR
			Revised due to commissioning of 400kV Tiruvalam- Kalivendapattu DC line, 400kV Kalivendapattu-Pugalur-1 & Tiruvalam 230kV line and LGBR Changes.	S1-S2
3	30-09-2014	01-10-2014	Revised due to the outage of Vallur Unit-2 and NCTPS St-2 Unit-1	S1-S2
		01-10-2014	Revised due to shutdown of 220kV Jeypore-Jayanagar ckt 1 and ckt 2 one at a time	ER-SR
		Whole Month	Revised after the reassessment of TTC due to the commissioning of the new elements in NER	ER-NER
		Whole Month	Revised considering the present inter-regional flow pattern and transit flows from ER to NR via WR	ER-NR

## ASSUMPTIONS IN BASECASE

Month : Oct '14

S.No.	Name of State/Area	Load		Generation	
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
<b>I</b>	<b>NORTHERN REGION</b>				
1	Punjab	6873		2298	
2	Haryana	6347		1950	
3	Rajasthan	8049		4652	
4	Delhi	4270		985	
5	Uttar Pradesh	9996		5793	
6	Jammu & Kashmir	1997		564	
7	Uttarakhand	1496		566	
8	Himachal Pradesh	1508		625	
9	Chandigarh	240		0	
10	ISGS/PPs	0		18031	
	<b>Total NR</b>	<b>40776</b>	<b>0</b>	<b>35464</b>	<b>0</b>
<b>II</b>	<b>EASTERN REGION</b>				
1	West Bengal	6471		4771	
2	Jharkhand	937		600	
3	Orissa	3564		3100	
4	Bihar	2345		110	
5	Damodar Valley Corporation	2626		3740	
6	Sikkim	84		0	
7	Bhutan	109		1001	
8	ISGS/PPs	548		8060	
	<b>Total ER</b>	<b>16684</b>	<b>0</b>	<b>21382</b>	<b>0</b>
<b>III</b>	<b>WESTERN REGION</b>				
1	Chattisgarh	3023		1779	
2	Madhya Pradesh	9513		4849	
3	Maharashtra	20147		15061	
4	Gujarat	11178		10164	
5	Goa	440		0	
6	Daman and Diu	276		0	
7	Dadra and Nagar Haveli	624		0	
8	ISGS/PPs	1278		21701	
	<b>Total WR</b>	<b>46479</b>	<b>0</b>	<b>53554</b>	<b>0</b>

## ASSUMPTIONS IN BASECASE

Month : Oct '14

S.No.	Name of State/Area	Load		Generation	
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
<b>IV</b>	<b>SOUTHERN REGION</b>				
1	Andhra Pradesh	5527		3532	
2	Telangana	5568		3434	
3	Tamil Nadu	10826		6586	
4	Karnataka	7571		6003	
5	Kerala	2943		1581	
6	Pondy	287		0	
7	Goa	68		0	
8	ISGS/IPPs	74		10977	
	<b>Total SR</b>	<b>32864</b>	<b>0</b>	<b>32113</b>	<b>0</b>
<b>V</b>	<b>NORTH-EASTERN REGION</b>				
1	Arunachal Pradesh	117		0	
2	Assam	929		254	
3	Manipur	117		0	
4	Meghalaya	335		154	
5	Mizoram	77		0	
6	Nagaland	104		24	
7	Tripura	278		109	
8	ISGS/IPPs	3		1301	
	<b>Total NER</b>	<b>1960</b>	<b>0</b>	<b>1842</b>	<b>0</b>
	<b>Total All India</b>	<b>138763</b>	<b>0</b>	<b>144355</b>	<b>0</b>